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MAINTENANCE OF SUPPLIES AND EQUIPMENT

Operating Guide for TDA Support Maintenance Activities

Headquarters
Department of the Army
Washington, DC
23 March 1970

Unclassified

SUMMARY of CHANGE

DA PAM 750–13
Operating Guide for TDA Support Maintenance Activities

This revision--

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MAINTENANCE OF SUPPLIES AND EQUIPMENT

Operating Guide for TDA Support Maintenance Activities

By Order of the Secretary of the Army:

W. C. WESTMORELAND
General, United States Army
Chief of Staff

Official:

KENNETH G. WICKAM
Major General, United States Army
The Adjutant General

History. Not Applicable

Summary. This pamphlet is the second in a series of documents designed to assist in improving the efficiency and effectiveness of TDA support maintenance activities. It defines and describes the various functions comprising a TDA support maintenance activity together with the organization, responsibilities, duties, and operation of these functions.

Maintenance managers are encouraged to use this guide in planning, organizing, directing and controlling the operation of their TDA support maintenance activity.

Applicability. Not applicable.

Proponent and exception authority. Not applicable.

Interim changes. Not applicable.

Suggested Improvements. Recommendations and suggestions for enhancing the value of this pamphlet are solicited and should be forwarded to DCSLOG, ATTN:LOG–MM, DA, Washington, D.C. 20310.

Distribution.

Active Army, NG and USAR: To be distributed in accordance with DA form 12–9 requirements for AR, Maintenance of Supplies and Equipment–C (qty rqr block #700)

Contents (Listed by paragraph and page number)

Unclassified

Contents—Continued

Section I
GENERAL

1. Purpose.
To provide a guide for maintenance management to plan, organize, direct and control the operations of TDA support maintenance activities.

2. Scope.
This pamphlet is applicable to all activities assigned primary and secondary equipment repair missions as set forth in AR 750–7. 3. Objectives.

3. Objectives.
a. To provide guidance for the uniform operation of TDA support maintenance activities.

b. To provide guidance for major commanders to effectively evaluate, manage, and continually improve operations of TDA support maintenance activities.

4. Definitions.
In addition to the definitions in AR 310–25, AR 750–1, AR 750–2, AR 750–5, AR 750–6, and AR 750–18, the following definitions apply:

a. TDA support maintenance activity–A functionally integrated organization and facility under the control of one maintenance officer, assigned equipment repair missions to perform direct and general support maintenance as set forth in AR 750–7.

b. Control reports–Compilation of data used to gain and retain control of shop operations.

c. Functional integration–The merging of organizational elements and physical facilities due to similar work, skills and equipment.

d. Maintenance management information–that summarization of data which the TDA support maintenance management may use to plan, schedule and control shop operations.

e. Single maintenance manager concept–The assignment of primary responsibility for TDA support maintenance to one office or individual having control over the resources and facilities required to accomplish the assigned maintenance workload. The title of the manager may be determined by major commands; however, the title Installation Maintenance Officer (IMO) is used in this pamphlet.

f. Direct labor–Those employees whose primary duties are to perform productive work, wherein the time is identifiable to specific job orders.

5. Use of Operating Guide.
a. Major commanders are encouraged to apply standard procedures to the maximum extent possible within the purview of this operating guide.

b. This pamphlet and DA Pam 20–551 (Staffing Guide, for U.S.-Army Garrisons) are to be used by each TDA support maintenance activity, including satellite activities for planning and functionally organizing for the most efficient and effective operation of the activity. Guidelines are provided for identifying the various functions associated with TDA support maintenance activities and for organizing the functions into organizational elements. Guidelines are also provided for directing and controlling the functionally organized TDA support maintenance activity.

c. All TDA support maintenance activities cannot be organized exactly the same due to the different sizes of the activities, missions supported, workloads, and other considerations. However, section IV contains general guidelines for developing organization structures for TDA support maintenance activities.

d. Guidance is also provided relative to the types of Maintenance Management Information (MMI) which can aid the IMO and his staff in managing the TDA support maintenance activity and evaluating its operation.

e. Control reports, charts and graphs described in this pamphlet have been designed to assist in managing a TDA support maintenance activity.

6. Concepts.
a. The single manager concept places the primary responsibility for TDA direct and general support maintenance on the Installation Maintenance Officer who has operational control over the resources available to accomplish the activity's assigned support maintenance workload.

b. Management by exception should be utilized by all levels of the activity management in the performance of their assigned functions. This allows the managers to concentrate their efforts on problem areas and conditions requiring management attention.

c. Consolidation and functionalization should be accomplished at all levels of the maintenance organization and in all physical facilities consistent with the most effective accomplishment of the assigned maintenance mission.

d. The designed unit/activity priorities established by the Department of the Army should be reflected through all stages of repair and requisitioning of materiel required to complete the work request.

e. Modern industrial management and industrial engineering principles and techniques should be applied to the operation of TDA support maintenance activities.

f. Duplication of materiel maintenance resources on an installation should be held to a minimum. Duplication should be considered only in the following instances:

(1) Responsiveness to materiel readiness makes it essential, or

(2) Workload justifies full–time personnel and full use of equipment, machines, and/or tools.

g. Organizational maintenance on operational readiness float and/or shop organic equipment should be performed by the support maintenance activity.

h. Maintenance technical assistance personnel, industrial engineers, and industrial engineering technicians associated with TDA support maintenance operations should be under the supervision and operational control of the IMO, and should be organic to the TDA support maintenance activity.

i. Production planning and control data reduction should be functionally included in the organizational structure of the TDA support maintenance activity.

j. The TDA support maintenance organization should provide on the job maintenance training opportunities for personnel of TOE support maintenance units.

7. Change Procedure.
As new management and industrial engineering Techniques, methods, and procedures are developed or as military needs dictate this pamphlet will be amended accordingly. Users of this pamphlet are encouraged to submit recommended changes and comments to improve the publication. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended.Reasons will be provided for each comment to insure understanding and complete evaluation. Comments should be prepared using DA Form 2028 (Recommended Changes to Publications) and forwarded direct through command channels to Deputy Chief of Staff For Logistics, ATTN: LOG–MM, Department of the Army, Washington, D.C. 20310.

8. References.
References applicable to this operating guide are listed in Appendix A.

Section II
MISSION AND FUNCTIONS

9. Mission.
The mission of a TDA support maintenance activity is to perform direct and/or general support maintenance on troop and installation operating equipment as authorized in accordance with AR 705–5 and listed in AR 750–7, and provide technical assistance to supported units.

10. Objectives.

The basic objective of TDA support maintenance is to improve materiel readiness of supported units. This objective can be attained by:

a. Being fully responsive to supported units' requirements.

b. Assuring effective utilization of available resources.

c. Assuring that maintenance performed meets acceptable standards of quality.

d. Achieving and maintaining an optimum level of productivity.

11. Functions.

a. The normal functions of a TDA support maintenance activity consist of the following:

(1) Industrial engineering.
(2) Technical assistance.
(3) Administration.
(4) Production planning and control.
(5) Quality assurance.
(6) Shop supply.
(7) Operations.

b. The foregoing functions normally have sufficient scope to expand into subfunctions consistent with the nature of shop missions, workload, and other contributing factors. Figure 1 shows a logical expansion of functions into subfunctions. Additional subfunction titles are not normally indicated on organizational charts.

c. It is recognized that local conditions such as size and degree of dispersion of shops, variance of missions, and skill of personnel may require some deviation from the function chart (fig.1).

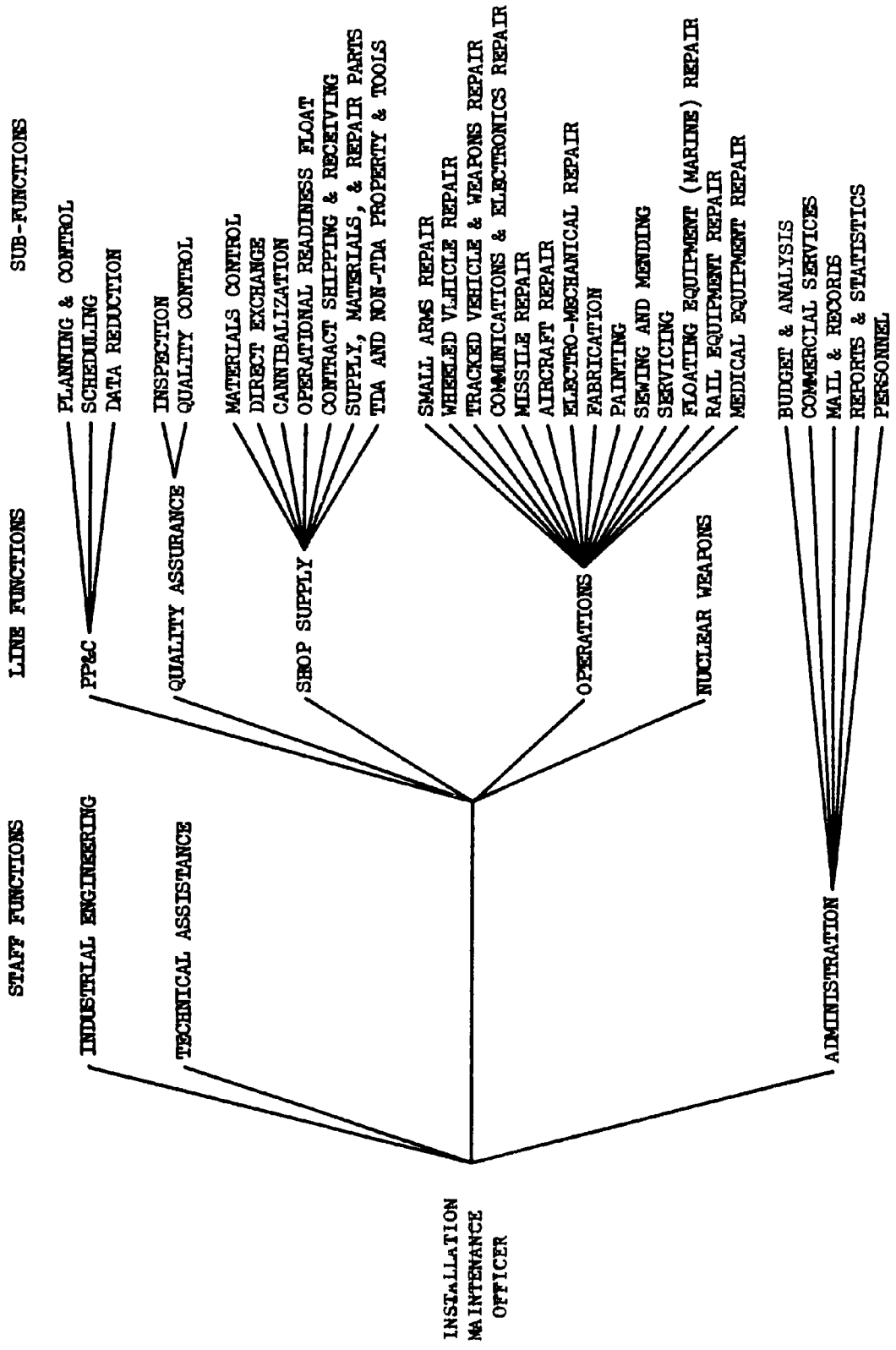


Figure 1. FUNCTIONS OF TDA SUPPORT MAINTENANCE ACTIVITIES

Section III
RELATIONSHIP OF THE TDA SUPPORT MAINTENANCE ACTIVITY WITH SUPPORTED UNITS

12. Relationship With Supported Units.

The TDA support maintenance activity provides effective maintenance support to supported units by–

a. Accomplishing authorized repair of equipment on a repair and return–to–user basis.

b. Providing technical assistance to supported units.

c. Maintaining an operational readiness float of selected end items and major components for issue in accordance with DA policies.

d. Providing a direct exchange service in accordance with AR 711–16 and AR 735–35.

e. Providing technical inspection services, advice, and assistance to ascertain the condition of equipment and the effectiveness of organizational maintenance.

f. Assisting in the evacuation of unserviceable equipment not repairable on site to the support maintenance activity where repairs can be accomplished.

g. Providing MMI generated as a result of support maintenance actions and required by the supported unit to fulfill reporting requirements.

h. Assisting in the evacuation of equipment's considered uneconomical to repair to a collection or property disposal area.

13. Relationship With TOE Maintenance Units.

TDA support maintenance activities provide maintenance training opportunities for personnel of TOE maintenance units. In addition, TOE maintenance units can be assigned maintenance missions to accomplish mission–type training.

a. Maintenance missions may be assigned to TOE maintenance units by local authority considering the capability of the unit and the need for continuity in the TDA support maintenance activity's assigned missions. Missions so assigned should not result in a reduction of the capability of TDA support maintenance activity to the extent that the activity cannot expand readily when TOE maintenance units are transferred, inactivated, or engaged in extensive field training exercises. Provisions are necessary to allow for overflow of work to the TDA support maintenance activity to insure that the materiel readiness of supported units is not reduced.

b. Personnel of TOE maintenance units may receive on–the–job training at the TDA support maintenance activity. In these cases, TOE personnel will perform repair work comparable to their MOS under the supervision of skilled repairmen and supervisory personnel.

c. TDA support maintenance activities provide back–up maintenance support for TOE maintenance units.

Section IV
OPERATIONS

14. General.

This section describes the procedure's, functions, and assignment of responsibilities for the operation of TDA support maintenance activities.

15. Responsibilities.

a. Installation Maintenance Officer. The Installation Maintenance Officer (IMO) is responsible for the management of shop operations within prescribed directives.The IMO makes optimum use of resources in accomplishing the shop missions. He maintains continuous liaison with supported units/activities to insure that support maintenance services are being provided in a timely manner and in accordance with acceptable serviceability standards. He exercises technical direction in the training of maintenance personnel of TOE support maintenance units.Principal duties of the IMO include:

(1) Establishing plans, policies, and procedures to effectively accomplish shop missions.

(2) Providing the best possible service to supported units consistent with available resources.

(3) Coordinating support maintenance operations with the installation staff and supported units.

(4) Providing technical assistance and guidance to TOE support maintenance units and satellited TDA support maintenance shops.

(5) Establishing standards of performance for operational elements and a management information collection system for measuring and evaluating their performance.

(6) Evaluating performance of all subordinate elements and initiating actions needed to improve capability and performance.

(7) Planning and directing training of personnel to improve their managerial capabilities and technical skills.

(8) Directing the operation of commodity commands technical assistance personnel assigned to the installation.

(9) Providing technical inspection personnel to the appropriate installation staff agency to assist in local command maintenance inspections as required.

b. Maintenance Line Chiefs. Chiefs of the maintenance staff and line functions as shown in figure 1 are responsible to the IMO for–

(1) Administration and operation of assigned functional areas.

(2) Applying improved techniques for effective management of operations to achieve optimum efficiency and economy.

(3) Complying with policies, directives and implementing instructions from *higher* commands in the operation of assigned functional areas.

16. Industrial Engineering.

a. General. Industrial engineering is a staff function which provides scientific management services to all elements of the support maintenance activity in the areas of methods engineering, work measurement, facility layout and design, and systems design, improvement and installation. This functional element normally is responsible directly to the Installation Maintenance Officer. Only in the smallest activity should the function include line operation responsibilities. Smaller support maintenance activities may be of insufficient size to justify the authorization of an industrial engineering function, in *which* case the function should be assigned to the most qualified element. Staff composition of the industrial engineering function should include industrial engineers and technicians, especially in the larger shop complexes.The technicians should assist in the improvement and economy of maintenance operations through the application of statistical and analytical procedures to all factors affecting methods and techniques used in the support maintenance activity.

b. Responsibilities and Duties. The chief of the industrial engineering function is responsible for industrial engineering and scientific management within the support maintenance activity. The principal duties of the industrial engineering function include–

(1) Applying the latest industrial engineering principles, disciplines, and techniques to develop, apply, and improve the work methods and performance time standards.

(2) Standardizing methods, tools, test equipment, and materiel.

(3) Analyzing internal shop operations and systems with recommendations for improvements.

(4) Developing improved shop processes and functional work area layouts and coordinating new facility construction with the post engineers as set forth in DA Pam 750–9.

(5) Reviewing and evaluating cost reduction reports and studies regarding costs, work simplification, equipment, and tool and manpower utilization.

c. Operations. Based on guidance received from higher headquarters and the IMO, the function operates to improve the efficiency, effectiveness, and economy of the TDA support maintenance activity through the application of modern industrial engineering principles, disciplines, and techniques. It institutes the programs and systems developed for the improvement of maintenance operations

and provides technical advice and assistance to the operating officials for the successful and timely implementation of these programs. and systems.The industrial engineer closely reviews and analyzes all MMI provided by the internal Production and Planning Control (PP&C)system, being constantly on the alert for problem areas that may be disclosed. Discovery of problem areas should be followed by corrective recommendations to the IMO. In this regard, close coordination and working relationships should be maintained with appropriate installation operating officials and the higher headquarters industrial engineer. When warranted, the industrial engineer initiates recommendations for the improvement of maintenance programs and systems.

17. Technical Assistance.

a. General. Technical assistance is a staff function under the IMO and provides maintenance management instruction and technical guidance on equipment to supported units. The function may be a separate office or be incorporated with the functions of the Office of the Installation Maintenance Officer, depending on the number of technicians assigned. Larger shop complexes may have subdivided elements to cover all phases of technical assistance. The services provided by technical assistance do not replace courses of instruction provided by Army schools, however, these services do provide a means to resolve specific technical problems or to overcome technical skill deficiencies among assigned personnel of supported units.

b. Responsibilities and Duties. The chief of the technical assistance function is responsible for providing all phases of technical assistance to units which are supported by the TDA support maintenance activity.The principal duties of the technical assistance function include–

(1) Conducting instruction on operation and maintenance of equipment.

(2) Directing and supervising the activities of technical assistance personnel provided by the commodity commands.

(3) Requesting technical assistance services beyond the capability of the support maintenance shop in accordance with the procedure prescribed in AR 700–4.

(4) Developing and maintaining a self–sustaining technical assistance capability.

(5) Evaluating maintenance reports to determine the specific areas and units which require technical assistance.

(6) Scheduling courses of instruction and assistance visits to supported units in order to insure maximum coverage within available resources.

c. Operations. Technical assistance personnel accomplish their duties primarily by conducting scheduled courses of instruction at a centrally located facility, on the job and onsite, and at the supported unit area. The centrally located facility is preferable, since it affords a means for a maximum number of attendees while using a minimum of technical assistance personnel. In addition to requests from supported units, the chief of the technical assistance function can determine technical assistance requirements by the analysis of the MMI which is an output of the activity PP&C system; Materiel Readiness Reports; Command Maintenance Management Inspection (CMMI) and local command inspection reports; new equipment received at the installation; new unit activation's;changes in maintenance procedures; and the condition of equipment in the hands of the user. An analysis of the foregoing can provide an indication of problem areas in individual supported units such as frequency of work requests; repetitive type of equipment failures;nonavailability of equipment; delays in forwarding unserviceable equipment to support maintenance; and type of deficiencies found in equipment, maintenance records, and maintenance operations. Upon determining the assistance requirements, the chief of the technical assistance function is able to prepare a schedule which will provide maximum benefit to the supported units and enable effective utilization of his personnel. Care should be exercised to insure that technical assistance personnel are utilized in their prescribed functions. They should not provide services that are within the capability of a supported unit nor be utilized as inspectors or members of inspection teams.

18. Administration.

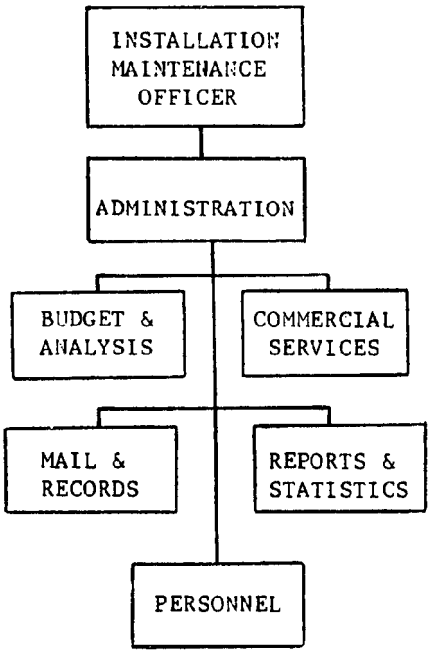
a. General. Administration is a staff function under the IMO and provides internal administrative services for the IMO regarding personnel, fiscal, commercial services, management data, and mail and records functions. Depending on the size of the activity and assigned missions, the administration function may be subdivided into subfunctions as indicated below.

b. Organization.

c. Responsibilities and Duties. The chief of the administration function is responsible to the IMO for the accomplishment of administrative, personnel, budget analysis, commercial services, and reports and statistics subfunctions associated with the support maintenance activity. The principal duties of the administration function include–

(1) Processing all incoming and outgoing correspondence.

(2) Maintaining the official files, administrative and personnel records, regulations, and classified documents.



(3) Accomplishing personnel and manpower administrative actions.

(4) Collecting, reviewing, analyzing, publishing, and disseminating all administrative reports.

(5) Maintaining internal funding, budgeting, and costing records and preparing related statistical reports.

(6) Administering, managing, and maintaining records concerning commercial services contracts.

d. Operations. The administration function is the focal point for all administrative type matters emanating, received, or stored in the TDA support maintenance activity. Consequently, its location is normally in the vicinity of the Office of the IMO. The chief of the administration function maintains close contact with the IMO and the chiefs of the shop functions. All incoming correspondence and publications are received, identified, and distributed to the applicable organizational elements. A suspense file is established for those requiring action. Under the supervision of the administrative chief, all outgoing correspondence is prepared, edited, and dispatched. In

the maintenance of files, administrative records, and regulations, the activity chief insures that they are posted current and readily accessible to using personnel. The administration function processes all civilian personnel actions and maintains appropriate files on assigned personnel. All time and attendance reports are received from the organizational elements, reviewed, and submitted to the finance and accounting office following locally prescribed procedures. The administration function collects, evaluates, and recapitulates cost and performance data. It receives, reviews, compiles, and prepares statistical data related to programming, budgeting, and cost and acts as the central control point for ACMS in the activity and submits the related reports. As required the administration function prepares specific requirements for contractual repair services and submits them to the installation purchasing and contracting officer. The establishment of the requirements must be coordinated with the other interested function chiefs to insure that the government interests are properly protected. The administration function will maintain records incident to the awarding of contracts for commercial repair and will follow up the coordinate scheduled delivery dates to include acceptance inspections.

e. Subfunctions.

(1) *Budget and analysis.* Collects, evaluates, and recapitulates cost and performance data and receives, reviews, compiles and prepares statistical data related to internal programming, budgeting, and cost.

(2) *Commercial services.* Administers, manages, and maintains records concerning commercial services contracts.

(3) *Mail and records.* Receives, processes, and distributes all official mail And correspondence within the activity. Maintains the official files, administrative and personnel records, regulations, permanent reports, and classified documents.

(4) *Reports and statistics.* Collects, reviews, analyzes, publishes, and disseminates all administrative reports.

(5) *Personnel.* Accomplishes personnel and manpower administrative actions.

19. Production Planning and Control.

a. General. Productive planning and control (PP&C) is a line function under the IMO. It plans, schedules, and controls all work requests processed through the activity. In addition to the chief, the function consists of personnel required to perform planning, scheduling, controlling, key punching, and clerical tasks. The numbers and types of personnel required are determined by the personnel strength of the support maintenance activity, job orders processed, and/or cards punched and verified and is the basis for establishing subfunctions as shown below. This function is a key element of maintenance management. Maximum output of work, effective utilization of personnel and facilities, and orderly progression of work throughout the support maintenance activity are dependent on the effectiveness of the production planning and control function.The following are the minimum objectives of a PP&C system:

(1) Increase materiel readiness by minimizing the average turn–around time of equipment by supported units.

(2) Maintain flexibility in maintenance operations so that high priority jobs, additional work, or rework requirements can be accomplished with minimum disruption to other work in process.

(3) Issue coordinated job schedules and orders to the shop areas with complete information to relate what is expected to meet delivery requirements.

(4) Followup job schedules to assure that delivery requirements are met.

(5) Predetermine resource requirements to the maximum extent possible prior to job order scheduling and expedite the delivery of unplanned parts requirements for work in process.

(6) Produce the most effective results for the least total cost in the services provided by the TDA support maintenance activity.

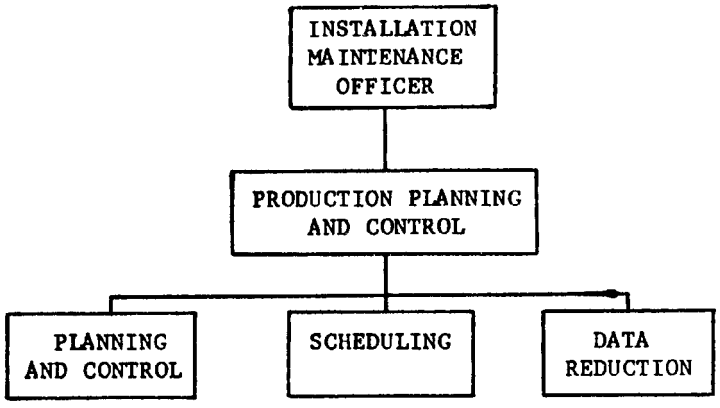
(7) Improve the timeliness and accuracy of management decisions by providing maintenance management information (MMI) pertaining to performance and conditions requiring management attention.

(8) Use the data collected, reduced, and processed for PP&C in satisfying the data requirements of higher commands.

b. Organization.

c. Responsibilities and Duties. The chief of the production planning and control function is responsible to the IMO for the centralized planning, scheduling, and controlling of production for the effective accomplishment of the support maintenance activity's assigned repair missions. The principal duties of the PP&C function include:

(1) Operating and managing the PP&C system, including workload and man–hour accounting procedures.



(2) Receiving, editing, and processing all work requests.

(3) Key punching and verifying all card data required by the PP&C system.

(4) Receiving, analyzing, and distributing all PP&C MMI in the form of control reports, trend charts, or other appropriate means of presentation, derived from the PP&C system and such other special workload and man–hour accounting reports as may be required.

(5) Maintaining the work order historical file.

(6) Planning and scheduling maintenance requests.

(7) Preparing all work order documents used for scheduling workload and resources into the direct labor work center.

(8) Operating the mechanized equipment when included in the PP&C system.

(9) Insuring that priorities and schedules are met within the capabilities of the support maintenance shop.

(10) Maintaining the maintenance request register if required.

(11) Determining man–hour requirements for each work center.

(12) Maintaining suspense and master control files for all work requests.

(13) Maintaining equipment and component densities and modification work order control.

(14) Determining the utilization of the operational readiness float.

(15) Planning for and scheduling periodic maintenance services and maintenance calibration services.

d. Operation. The production planning and control function receives all work requests from the supported units/activities after the equipment has been accepted by the inspection subfunction of quality assurance. The work request is checked for completeness, and the receipt copy is returned to the supported unit representative.Pertinent information form the work request is processed according to the prescribed PP&C system. During the process, a predetermination is made of the work required, time to accomplish repairs, repair parts required, and the availability of the required parts. Based on the availability of required repair parts, priority of the work request, the acceptance date of the work request, and availability of man–hours to accomplish the necessary repairs, the equipment is scheduled for repair. Upon receipt of information that all of the repairs have been accomplished, a final inspection is scheduled and completed, equipment is receipted for and picked up by the unit, and the documentation returned to PP&C. The files and registers are appropriately annotated, cost and other management data extracted, as required, and necessary forms provided to the TAERS Data Collection and Reduction Center. Data is provided regarding the current status of each job order and may be in the form of machine listing control reports, manually maintained reports, tub files or on production control boards, depending on the PP&C system in operation. The data provides all levels of management with that information essential to control the respective areas of responsibilities. Depending on the degree of mechanization of the PP&C system, data may by provided that identifies each work request by priority, those behind the scheduled start and due dates, those that have been completed, man–hours assigned for the work request, remaining man–hours to complete the work request, nonavailable time for supply and/or maintenance, and delays of using units in picking up completed equipment's. Additionally, man–hour accounting and cost data is collected which indicates the efficient or inefficient use of manpower and the cost to complete a job order.The efficient operation of the PP&C function requires close scrutiny and accurate analysis of the maintenance management information which is developed. Work centers should be loaded to assure that they are not overload. Normal work flow should be maintained and any interruption corrected immediately. In addition to the MMI collected by the PP&C system and function retains and end item and component master identification and modification work order control file which is maintained in a current status.

e. Subfuntions.

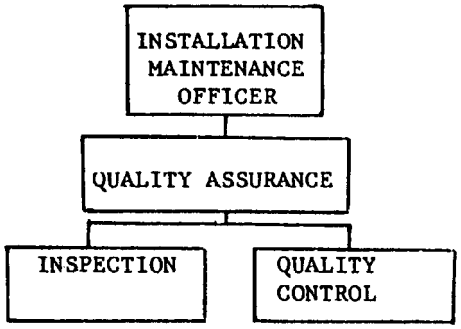
(1) *Planning and control.* Receives, edits, and processes all work requests;distributes PP&C MMI; maintains the work order historical suspense and control files, and the maintenance request register;maintains equipment components; densities and modification work order (MWO) control; accomplishes all long and short range planning;and performs PP&C customer relation functions.

(2) *Scheduling.* Maintains records required for scheduling workload and resources into the direct labor work centers and determines man–hour requirements for each work center.

(3) *Data reduction.* Initiates, key punches, verifies and forwards to data processing all punched card data required by the PP&C system;operates the mechanized equipment when included in the PP&C system; and provides to the TAERS Data Collection and Reduction Center the MMI necessary to fulfill the TAERS requirements.

20. Quality Assurance.

a. General. Quality assurance is a line function under the IMO. It accomplishes all inspections in equipment processed through the support maintenance activity, assures that shop equipment receives required calibration and maintenance calibration services and assures that equipment of supposed units is maintenance calibrated in accordance with prescribed standards. The types of inspections performed include acceptance inspection of equipment from supported units/activities, initial inspection to determine extent and nature of repairs, inspection, and final inspection to assure that repairs have been accomplished and equipment restored to a serviceable condition. Inspection personnel assist the installation staff in local CMMI and other type inspections, as required. All functions are accomplished under the centralized control of the chief of quality assurance regardless of the actual location where the work is accomplished. The size of the function and the establishment of subfunctions as shown below are determined by the number of inspections and services performed. In those cases where full–time use is made of inspection personnel by installation staff elements, a field inspection function may be included in quality assurance.



b. Organization.

c. Responsibilities and Duties. The chief of the quality assurance function is responsible for the accomplishment of all inspections on equipment, quality control, and for assuring that maintenance calibration services performed by the shop meet prescribed standards. The principal duties of the quality assurance function include:

(1) Accomplishing acceptance, initial, in–process, surveillance, and final inspection of equipment as required.

(2) Providing inspection services and advise to the installation staff and supported units/activities.

(3) Determining repair eligibility of items.

(4) Determining repair parts requirements for each work request, if the repair parts have not been redetermined.

(5) Estimating the time required to complete the work request if engineered or statistical time standards are not available.

(6) Conducting investigations of quality complaints and recommending corrective action.

(7) Recommending survey action when equipment is determined to be damaged through other than fair wear and tear.

(8) Maintaining the technical manual library.

(9) Assisting the installation staff in the performance of local command maintenance inspections and other equipment inspection.

(10) Assuring that maintenance calibration of all designed test and measuring equipment in the support maintenance activity and in the support units/activities is performed in accordance with prescribed standards and that the required forms are prepared in accordance with chapter 6 of TM 38–750.

(11) Compiling and analyzing inspection records to identify unfavorable trends.

(12) Analyzing inspection records to identify unfavorable trends.

(13) Developing quality control techniques, criteria, and procedures.

d. Operations. Quality assurance is accomplished by assigned personnel under centralized control of the chief of the function regardless of the size and location of the support maintenance shop complex.Inspections are accomplished at designated locations which will least interrupt an orderly movement of the equipment throughout the support maintenance activity during the job order process.Acceptance and initial inspection areas should be in the same approximate location and at the entrance of the repair shops.Smaller shops may have only one area while larger shop complexes may have an area for each subfunction. In–process and surveillance inspections are accomplished at the repair site. Final inspections are accomplished at designated areas similar to those described for acceptance and initial inspections except that the area location is normally in the vicinity of the repair shop exit. CMMI and similar type inspections are accomplished at locations directed by the installation staff.

(1) *Acceptance inspections.* All equipment evacuated for support maintenance services are received at the appropriate acceptance area, together with the equipment log book, if applicable, and the work request. At this location, inspectors determine that the item is complete, organizational maintenance has been accomplished on the equipment, and that the work request has been accurately completed. If the item is acceptable, the work request is signed as received by the inspector; and, is it is not practical to perform initial inspection at this time, the item is moved to the immediate holding area. If the equipment is not acceptable, the supported unit representatives should be requested to correct those organizational deficiencies before the equipment is again offered for acceptance.

(2) *Initial inspection.* If an item receives initial inspection, it is moved to the initial inspection area where the inspectors conduct a comprehensive inspection to determine the work required by work center, the estimated time required to complete the work if engineered or statistical time standards are not available, and the necessary repair parts if the repair requirement is not specified. During this inspection, maximum use is made of test and diagnostic devices.Repair eligibility of the equipment is determined; and, where appropriate, recommendations are made for survey actions and/or for the disposal or evacuation of the item for depot maintenance. Upon completion of the inspection, the equipment is returned to the storage location and the inspection results forwarded to PP&C for processing.

Note. Due to the nature of the work content, certain items (e.g.communication and electronic equipment) may not receive an initial inspection.

(3) *In–Process (in–line) inspection.* Although repair shop personnel are responsible to accomplish require shop personnel are responsible to accomplish required repairs properly, inspectors insure that work is accomplished in accordance with established repair standards by observing the repairs in process at the repair shops. The multitude of repair actions in process preclude observation of all repair actions; however, particular attention should be placed on work which may be subsequently placed on work and cannot be easily seen during final inspection.

(4) *Final Inspection.* Upon completion of all work on the work request and when notified by PP&C, the quality assurance personnel perform an inspection of the item at the designated final inspection area. The final inspection consists of checking the adequacy of each maintenance action accomplished on the item against that required by the work request. Final inspection also determines that the equipment meets established serviceability standards. Upon satisfactory completion of the inspection, the results are recorded and forwarded for further processing and the equipment moved to the area designated for unit pickup. If the final inspection reveals quality deficiencies, the inspector initiates action to recycle the equipment for satisfactory completion of repairs. When possible, minor repairs and/or adjustments will be accomplished at the final inspection area without re–processing the work request. Inspection personnel also perform final inspection of test and measurement devices repaired/maintenance calibrated by the operations function.

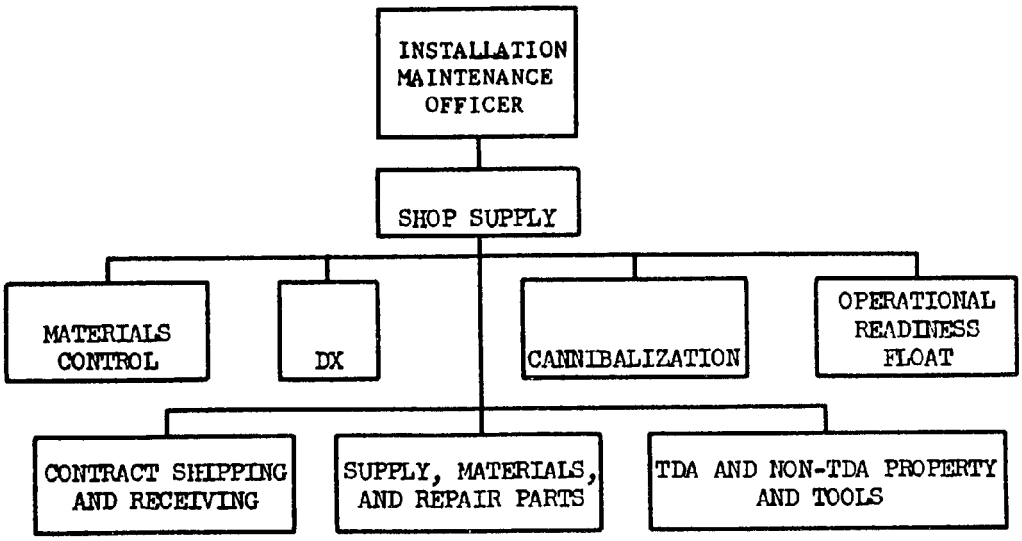
e. Subfunctions.

(1) *Inspection.* Accomplishes all acceptance; initial, in–process, and final inspection of equipment required; recommend survey actions when required; determines repair eligibility of items; maintains technical manual library; determines repair parts requirements and estimates time required to complete work orders when this data is not provided in the engineered time standards file; and assists in local command maintenance inspections and other equipment inspections.

(2) *Quality control.* Performs surveillance inspections to determine the effectiveness of the quality control procedures; investigates quality complaints and recommends corrective action, compiles statistical data and records and initiates reports; analyzes inspection records to identify unfavorable trends; and develops quality control techniques, criteria, standards, and procedures and quality management programs.

21. Shop Supply.

a. General Shop supply is a line under the IMO. It requisitions, procures, receives, stores, maintains records of, and issues all supplies required for the efficient operation of the support maintenance activity. This includes computation and a maintenance authorized levels of shop stock, direct exchange, tools, test equipment, and operational readiness float items. This function maintains the property book and operates the cannibalization point.Shop supply functions are accomplished under centralized control and the operations should be centralized to the maximum extent feasible.However, it is recognized that the location, size, and type or repair shops may require decentralized supply operations and locations to a maximum of one per functionalized repair shop. The size of the shop supply function is primarily determined by the number of supplies processed and may be expanded into subfunctions as shown below.



b. Organization

c. Responsibilities and Duties. The chief of the shop supply function is responsible for the accomplishment of all supply and related functions in support of the activity's operations. The principal duties of the shop supply function include–

(1) Requisitioning, receiving, storing, maintaining records, and issuing of the supplies, materials, tools, and repair parts required for the support maintenance shop operations.

(2) Segregating repair parts for specific work requests and delivering them to applicable work centers

(3) Providing repair parts availability information for each work request.

(4) Computing and maintaining the authorized level of shop stock, direct exchange, and operational readiness float items.

(5) Initiating followup action to accomplish timely receipt of supplies.

(6) Providing direct exchange and operational readiness float service to supported units.

(7) Maintaining the support maintenance activity property book.

(8) Conducting inventories of stock at prescribed intervals.

(9) Administering and operating the cannibalization point.

(10) Maintaining physical protection over all supplies.

(11) Accomplishing organizational maintenance on operational readiness float items, shop tools, and test equipment maintained in the tool room.

(12) Shipping and receiving items which are being repaired or maintained under commercial contract.

(13) Coordinating the scheduling of direct exchange items for repair with the PP&C function.

d. Operations. Shop supply functions are accomplished under the centralized control of the chief of the function, regardless of any decentralized operation. The shop supply function directly serves the support maintenance activity's repair functions by expediting the supply of repair parts for each work request and by maintaining a stockage of those items qualifying for stockage. Repair parts requirements are made known to shop supply by the PP&C function, work center foremen, or the workmen. Repair parts available in stock are pulled from stock locations and placed in separate holding areas for each work request. Those required parts not in stock are placed on requisition to the installation supply, purchased locally, obtained by cannibalization, or fabricated. Upon receipt of the repair parts which have been requisitioned or procured, they are segregated and placed in the designated holding areas for each work request. The PP&C function is notified when all repair parts are available through the PP&C system in effect at the activity.Upon notification from the PP&C function, repair parts are removed from the holding area and taken to the work center designated to accomplish the work. Shop production is greatly affected by the ability of shop supply to obtain required repair parts on a timely basis. The effectiveness of shop supply can be improved by forecasting and obtaining repair parts for anticipated workload based on analysis of parts usage, equipment age, and training requirements. It is imperative that followup action be constantly maintained for all items on requisition. The repair parts with a long lead time for receipt should be brought to the attention of the IMO for a reexamination of the parts requirement and for giving consideration to local purchase, fabrication, or cannibalization. Consideration should also be given to the issuance of operational readiness float items.

(1) Shop supply operates a cannibalization point as an alternate source of supply. Such operations are in accordance with AR 750–50 and are designed to provide needed serviceable repair parts that are not included in stockage lists. The cannibalization point is a source of low mortality parts that are removed from uneconomically repairable end items or end items scheduled for disposal. Normally, repair parts so removed will not be stocked, but they will be used to accomplish repairs against specific work requests. Additionally, repair parts obtained through cannibalization will be reflected as demand and usage on the supply records.

(2) Shop supply operates a direct exchange service for both the support maintenance activity and the supported units. This service is intended for the exchange of repairable or recoverable repair parts, components, and assemblies for serviceable ones to reduce the downtime of equipment. Items authorized for direct exchange will be limited to repair parts and assemblies annotated with the code"R" in the recoverability column of the applicable DA technical publication and by command policies established for the control of certain items. Lists of direct exchange items will be furnished supported units as a basis to exchange unserviceable for serviceable items will be in accordance with the applicable governing DA regulations. To preclude the exchange of serviceable items qualifying for direct exchange, those items turned in should be tested or inspected for serviceability prior to accomplishing the exchange.

(3) Shop supply maintains an operational readiness float of selected end items and major components for issue to supported units in accordance with DA policies established for the control and issue of float stocks. Float items are issued to supported units for the replacement of unserviceable items in the support maintenance activity which cannot be repaired and returned to the using unit within allowable time limits based on unit priority. These time limits are published by the command exercising control over the float stocks.

Adequate usage and levels can be determined by the non–available rate of float stocks during a cumulative period.Serviceable operational readiness float stocks require the same maintenance as organizational items. Operator and organizational maintenance services to include maintenance administration will be accomplished by the shop supply function.

(4) The shop supply function maintains the records and accounts for all property issued to the support maintenance activity. IN addition to repair parts, this includes such items as tools, shop equipment, desks, tables, and chairs. The control of suck property requires that it be further placed on memorandum receipt to the lowest subfunctional element such as the work center supervisor.Property so placed should be inventoried at prescribed intervals and appropriate action initiated to account for and replace shortages.It is common for the repair parts accounting, requisitioning, and records function (materials control) to be physically located in the PP&C functional area even though it remains under the operational control of the shop supply function. This arrangement will greatly reduce the time required for PP&C to determine repair parts availability and to reserve or order the required parts, which in turn reduces the time required to process a given work order.

(5) Another function of shop supply is to operate the tool room(s) for the various functional repair elements. This function includes the control, storage, and issue of tools to the shop mechanics. The control system is a local measure designed to insure the availability and security of tools are maintained properly before storage. This system uses a hand receipt or tag to indicate the name of the individual using a particular tool at any time.

e. Subfunctions.

(1) *Materials control.* Requisitions, accounts for, and maintains the stock records for supplies, materials, and repair parts; provides repair parts availability information; computes the authorized level of shop stock, direct exchange, and operational readiness float items and initiates followup action to accomplish timely receipt of supplies.

(2) *Direct exchange.* Receives, stores, and issues DX items; provides DX service to the activity and supported units; and maintains the records of DX items.

(3) *Cannibalization.* Administers and operates the cannibalization point.

(4) *Operational readiness float.* Receives, stores, and issues operational readiness float items; provides operational readiness float service to supported units; maintains records as to status and location of operational readiness float times; and accomplishes organizational maintenance on operational readiness float items.

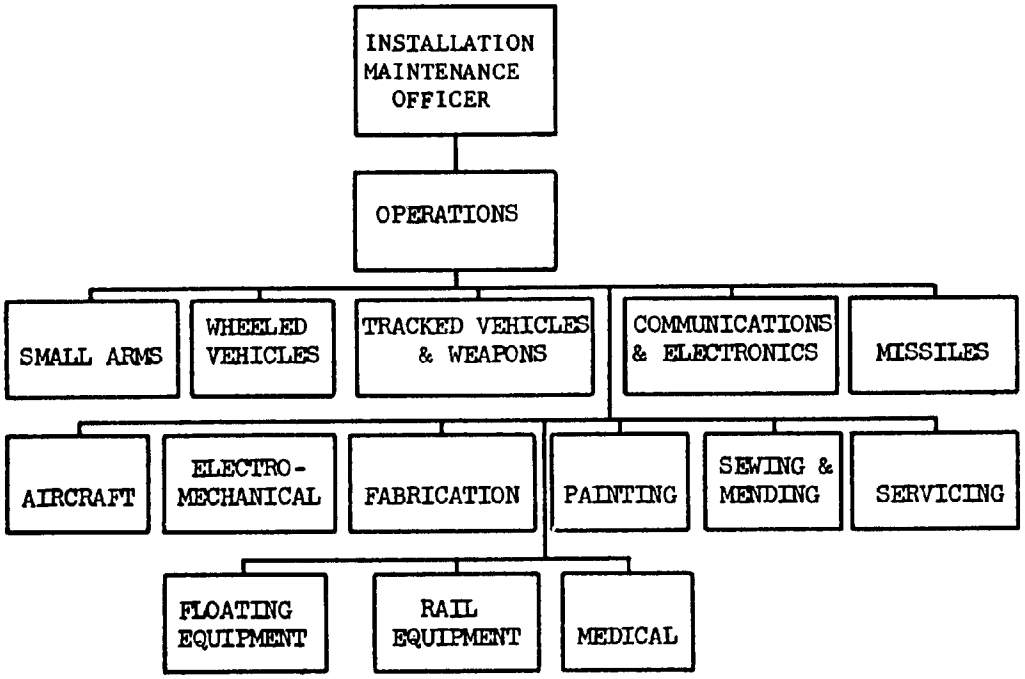
(5) *Contract shipping and receiving.* Ships and receives items being repaired or maintained under commercial contract.

(6) *Supply, materials, and repair parts.* Receives, stores, and issues supplies, materials, and repair parts; segregates repair parts for specific work requests and delivers then to applicable work center; conducts physical inventories of stock at prescribed intervals; and maintains physical protection over all supplies.

(7) *TDA and non–TDA property and tools.* Administers, receives, stores, requisitions, and issues all TDA and non–TDA property and tools, and test equipment and maintains the support maintenance activity property book.

22. Operations.

a. General. The operations function is responsible for the performance of maintenance and repair services and maintenance calibration services within the support maintenance activity and as a maximum may be comprised of the subfunctions as shown below. Each subfunction is responsible for the efficient and effective utilization of the resources necessary for the accomplishment of scheduled maintenance and repair workload. These subfunctions accomplish all maintenance actions designated on the work requests as predetermined by initial inspection and in accordance with the schedule prepared by the PP&C function. Each subfunction consists of work centers or shops to encompass all authorized primary and secondary missions. The type of subfunctions in a support maintenance activity complex is dependent on the number of authorized equipment repair missions.



b. Organization.

c. Responsibilities and Duties. Each chief of a subfunctional element is responsible for the efficient and effective utilization of resources necessary to accomplish required maintenance and maintenance calibration actions within established technical standards. The principal duties common to all subfunction chiefs and work center supervisors include:

(1) Effectively managing the operations of assigned work centers.

(2) Accomplishing only authorized maintenance actions generated by a work request and as scheduled by the PP&C function.

(3) Reviewing output MMI from the PP&C system to detect areas requiring improvement.

(4) Insuring the maintenance actions are accomplished according to established technical standards.

(5) Effectively utilizing assigned personnel.

(6) Insuring that assigned personnel properly complete daily labor cards, workload accounting cards, and/or any other cards or forms required.

(7) Insuring that safety practices are observed by shop personnel.

(8) Performing maintenance calibration of all designated test and measuring activity and in the supported units/activities.

d. Operations. Maintenance actions are accomplished at the designated work centers as scheduled by the PP&C function. The work centers are informed in advance of work scheduled by PP&C. Repair parts required for completion of a work request are delivered to the applicable work center prior to starting maintenance actions. On the scheduled date, the work center supervisor assigns the work to a specific repairman who moves the item to be worked on into the repair shop. The mechanic accomplishes the maintenance actions outlined on the work request and annotates the time expended and other appropriate information on the proper form according to the requirements of the PP&C system. Upon completion of work, the work request package is returned to the PP&C function and the shop supply function is notified of any repair parts not used.

(1) Certain components and commodities such as communication equipment, avionics, and small arms, may require the repairman to accomplish a diagnostic inspection on such equipment and at the same time perform the required maintenance action.

(2) For the most part, maintenance actions are accomplished in designated maintenance facilities; however, occasions arise when items to be repaired are not easily move and service can be expedited by accomplishing repairs at the site of equipment failure.An example is a supports ARADOCM units, where may repairs are accomplished on site. On such occasions, repairmen are dispatched from the supporting operations subfunction and accomplish the requested repairs on site. In these cases, the repairmen also accomplish the required inspection functions.

(3) Equipment requiring maintenance calibration and calibration is brought by the user to a designated location (s). Qualified personnel of the support maintenance activity accomplish maintenance calibration by comparing test and measuring equipment received against a certified standard. Upon completion of these services, the using unit is notified to pick up the equipment and the personnel accomplishing the services annotate the appropriate records. The requests for repair of test and measurement devices are processed the same as other work requests.

e. Subfunctions.

(1) *Small arms.* Accomplishes the small arms maintenance and repair function assigned to the activity.

(2) *Wheeled vehicles.* Accomplishes the wheeled vehicle maintenance and repair function assigned to the activity.

(3) *Tracked vehicles and weapons.* Accomplishes the tracked vehicle and heavy weapons maintenance and repair function assigned to the activity.

(4) *Communications and electronics.* Accomplishes the communications and electronics maintenance and repair function assigned to the activity.

(5) *Missiles.* Accomplishes the on–post and on–site missile and missile systems maintenance and repair function assigned to the activity.

(6) *Aircraft.* Accomplishes the aircraft maintenance and repair function assigned to the activity.

(7) *Electro–mechanical.* Accomplishes the electro–mechanical and general mechanical maintenance (e.g., electric power generators, pumps, compressors, typewriters) and repair function assigned to the activity.

(8) *Fabrication.* Accomplishes the fabrication maintenance (e.g., woodworking, welding, sheet metal, machining) and repair support function required by the activity.

(9) *Painting.* Accomplishes the on–post and on–site painting function for all end items. The scope is determined by the range of end items processed by the support maintenance activity.

(10) *Sewing and mending.* Accomplishes the sewing and mending maintenance and repair support function required by the activity.

(11) *Servicing.* Accomplishes the servicing and processing function (e.g., washing, steam cleaning, lubricating) related to maintenance and repair that cannot be reasonably assigned to the other operation'subfunctions. The servicing function also includes organizational maintenance of the activity's TDA equipment.

(12) *Floating equipment.* Accomplishes the floating equipment and repair function assigned to the activity.

(13) *Rail equipment.* Accomplishes the rail equipment maintenance and repair function assigned to the activity.

(14) *Medical.* Accomplishes the medical equipment maintenance and repair function assigned to the activity.

23. Nuclear Weapons.

a. General. This is a line function under the IMO that provides direct and general support to units with nuclear weapon missions and/or units assigned nuclear weapon peculiar equipment.

b. Responsibilities and Duties. The chief of the nuclear weapons function is responsible for providing nuclear weapons function is responsible for providing nuclear weapons maintenance and maintenance calibration services to units supported by the TDA support maintenance activity. The principal duties of the nuclear weapons function include–

(1) Accomplishing authorized maintenance and maintenance calibration actions on nuclear peculiar equipment in accordance with established technical standards.

(2) Coordinating area calibration between calibrating facilities and using organizations.

(3) Providing technical assistance to supported units with nuclear weapon missions.

(4) Maintaining shop stock to meet own requirements.

d. Operations. Nuclear weapon support is provided in accordance with AR 50–2, AR 611–15, AR 700–65, DASA/DA Technical Publications, and JCS Safety rules implemented by DA.

24. Organization Structure.

a. Organization structuring, by a logical distribution of functions (para 11), is the framework for accomplishing the assigned missions and existing or anticipated workloads through clearly established channels of command. The basic organization structure of a TDA support maintenance activity is, in descending order, as follows:

(1) Division (Office of the Installation Maintenance Office).

(2) Branches.

(3) Sections.

(4) Units (teams or shifts).

b. A maximum of three organizational level comprise the maintenance activity below the IMO. Other smaller elements are for supervisory control.

c. Every effort should be made to maintain a simplified organization that is devoid of superfluous echelons or layer of supervision. However, oversimplification of a n organization can produce adverse results. The most economical yet effective organization is that wherein separate functions are organized through establishment of logical organizational elements and the grouping of dissimilar a functions within single elements is kept at a minimum. Consistent

with the above, consolidation of functions/subfunctions into organizational elements following the functional alignment set forth in figure 1 is encouraged.

d. Organizational elements which are not required for mission accomplishment at a particular installation should not be established. Furthermore, organizational elements should not be maintained when no longer required.

e. Organizational elements should bet be established unless the proposed element will be authorized three or more employees.

f. A branch or section should not be subdivided into subordinate organizational elements if there are fewer than ten authorized personnel.

25. Labor Classification.

a. The following are classifications of the functions of a TDA support maintenance activity. Except as noted below, personnel assigned in these functions are classified accordingly. Time expended by all activity personnel will be charged in accordance with the labor distribution codes in TM 38–750–1.

Table 1

Function	Labor classification
Office of the Installation Maintenance Officer	Indirect
Industrial engineering	Indirect
Technical assistance	Indirect
Administration	Indirect
Production planning and control	Indirect
Quality assurance [1]	Indirect
Shop supply	Indirect
Operations [2]	Direct
Nuclear weapons [2]	Direct

Notes:

[1] Inspection personnel, who report the majority of their total available time on the job orders, will be classified as direct labor.

[2] Clerical administrative, supervisory, and servicing functions personnel in the operations and nuclear weapons functions will be classified as indirect labor.

b. Personnel are so categorized to facilitate man–hour exception accounting, the computation of direct/indirect labor ratios, and the determination of overheard costs.

c. The IMO should strive to attain an optimum ratio of direct/indirect labor.

Section V
DATA COLLECTION AND SUMMARIZATION

26. General.

In order to properly manage the TDA support maintenance activity, the IMO and his staff must be provided certain maintenance management information (MMI). The analysis of the MMI will indicate those areas requiring immediate management attention and will also assist shop supervisory personnel in exercising control over their areas of responsibility.

27. Collection of Data.

The type and mount of data collected, reduced and analyzed at each TDA support maintenance activity will be determined mainly by the PP&C system in effect at the activity. As the degree of mechanization of the PP&C system is increased, the amount of data that may be collected by the system is also increased. With a completely manual PP&C system, the mount of data that can be collected and summarized economically is limited.

28. Summarization of Data.

TDA support maintenance activities are dependent on data processing for summarization and printout of collected data. Major commands will consider the capabilities and priorities established at installation data processing during the development of PP&C systems.

29. Presentation of Data.

Data may be presented in may ways, the two most common being control reports and trend charts.

30. Reports.

The control reports are designed to aid all level of management in planning, scheduling, and controlling shop operations.

31. Trend Charts.

A more effective way of presenting the MMI collected by the PP&C system is in the form of trend charts. Trend charts give a visual illustration of the tendency of a given condition over a specified period of time. One trend chart may be used as a summary of several reports and, in many cases, will eliminate the need by management to review the detailed information provided in the reports. I would only be necessary to review the detailed data in the reports if the trend chart indicated that a particular area was out of control and required management attention. Several examples of the type of charts that may be produced are given below. The Lower Control Limits (LCL) and Upper Control Limits (UCL) identified on the trend charts are examples and maintenance management is encouraged to develop limits that will satisfy their particular needs. The list of trend charts is not all inclusive and many more could be developed to meet the particular requirements of a TDA support maintenance activity.

a. Work Center Efficiency, Effectiveness, and Labor Utilization. The chart in figure 2 depicts the percent efficiency, effectiveness, and labor utilization for a given work center.Efficiency is the ratio of standard performance time to actual performance time. Effectiveness is the product of average efficiency and direct labor utilization rate achieved during a specific period of time. The labor utilization rate is the percent of total available direct labor utilization rate and efficiency. The dotted, solid, and dashed lines indicate the actual labor utilization rate and levels of efficiency and effectiveness, respectively. As can be seen from the graph, the efficiency of this work center is dropping far below the acceptable level and indicated that corrective action should be taken. The low efficiency may indicate a need for technical training, personnel motivation, supervisory training, validation of time standards, or other corrective action. The assignable cause should also be determined if the efficiency exceeds 100 percent. If the efficiency remains high and the effectiveness is dropping, this may be an indication that may delays beyond the control of the workman are occurring; and the workman is clocking off the job and remaining idle when each delay occurs. If the labor utilization rate is declining, this is an indication that the workmen are expending less time against specific job orders and the assignable cause should be determined.

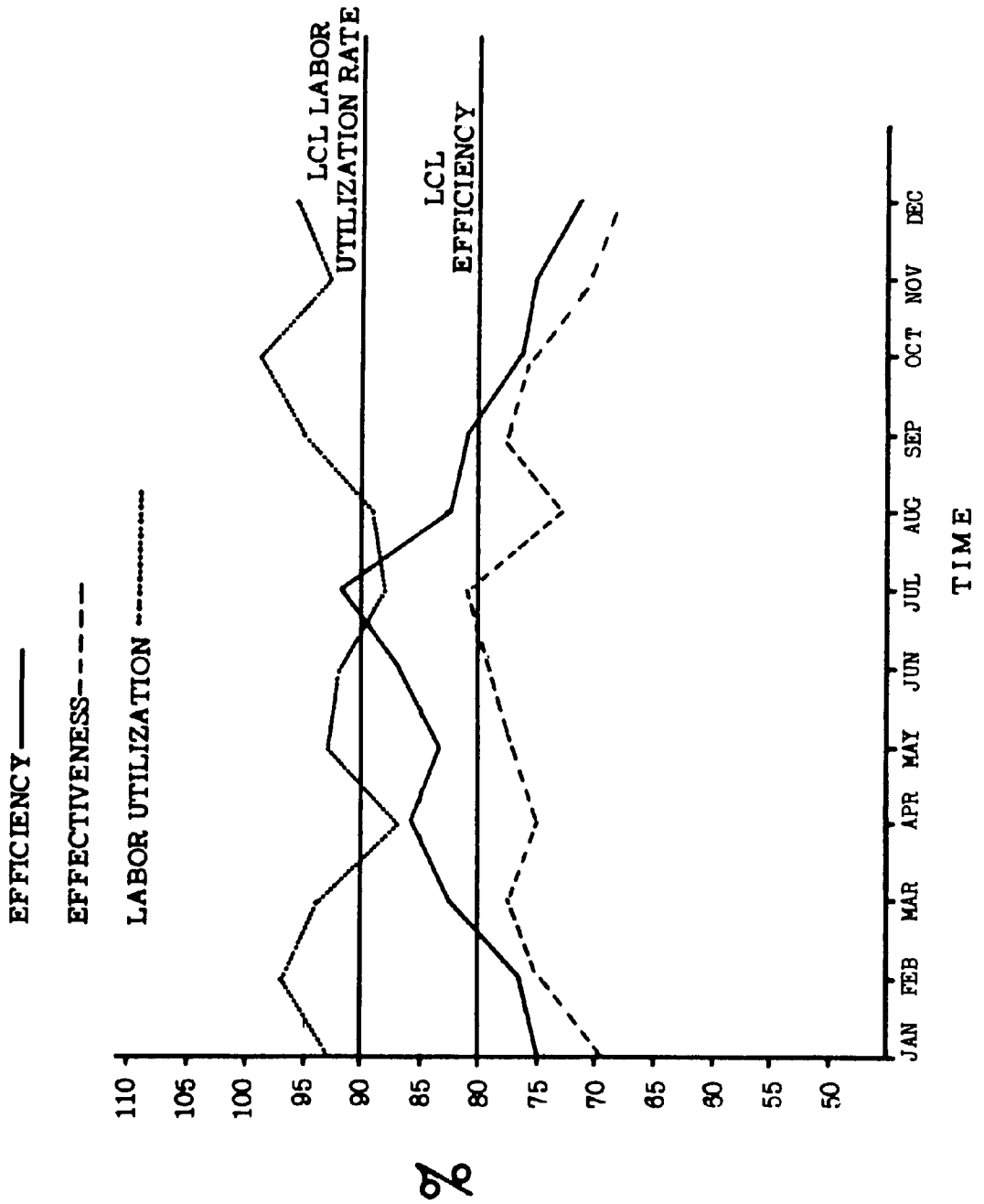


Figure 2. WORK CENTER EFFICIENCY, EFFECTIVENESS, AND LABOR UTILIZATION

b. Work Performed as a Percent of Inspection Results. Figure 3 shows an example of a trend chart that is used to compare the work actually performed in the shop against the repairs specified by the initial inspectors. This chart will give an indication of the proficiency of the initial inspectors. For example, if an inspector determined that certain repair had to be performed on an end item and the total standard time to accomplish these repairs is 100 hours, but the workman had to perform two additional operations not specified by the inspector that had a total standard time of 20 hours, this would be indicated on this chart as 20 percent more work. The two horizontal solid lines indicate the upper and lower control limits. These limits may be set to any desired degree of accuracy; and, in this example, they indicate that up to a 5 percent deviation by the inspectors is acceptable. If the trend line starts to climb, this indicates that the inspectors are missing items that need to be repaired by the inspectors is acceptable. If the trend line starts to clime, this indicated that the inspectors are missing items that need to be repaired. If the trend line falls below the lower limit, this indicates that the inspector is calling out items to be repaired that do not require repair.

c. Backlog. The trend chart in figure 4 provides a breakdown of the backlog, in days, for a particular work center. The horizontal lines indicate the upper control limits for total backlog and backlogs due to shortages of parts, labor, and tools. If any of the trend lines climb above their respective upper control limit, corrective action may be necessary. This Investigation by management should reveal the reasons for these shortages, e.g., there may be many requirements for a certain special tool and the purchase of another like tool may alleviate this problem, proper levels of repair parts are not being maintained, parts are being cannibalized and the demand and

usage data is not being recorded, requisitions are not being prepared promptly or other reasons within the control of the facility.

d. Jobs Accepted, Jobs Processed, and Backlog. In the trend chart in figure 5, and solid line shows the number of jobs accepted by the wheeled vehicle shop; the dashed line shows the number of jobs processed by the shop; and the dotted line denotes the backlog. As can readily be seen from the chart, the backlog in the wheeled vehicle shop is on the increase and indicated to management that corrective action should be taken, e.g., reassignment of personnel from another functional area to the wheeled vehicle shop, overtime, hiring temporary personnel, increasing facilities, or other actions that will decrease the backlog. This chart can be used with the applicable man–hour figures to determine the backlog in man–hours by work center.

e. Percent Parts Not Received in Priority Time Period. Figure 6 depicts the percentage of parts of a given priority that have been requisitioned and not received in the allowable time frame. The priority of the supported unit determines the allowable time frame to receiving the required parts from installation supply. The example indicated that the percentage of parts, in the 1–3 priority category, that were not received in the allowable time period has more than doubled in the last 4 months.Followup action to determine the cause and correct this situation should be initiated Control limits may be established on the chart to highlight when corrective action is necessary.

f. Jobs behind Scheduled Start Date. The trend chart in figure 7 indicates the percentage of work orders accepted by the TDA support maintenance activity that the workmen have not begun on the start date established by the scheduling function of PP&C. The start date is based on the priority and due date of the work order. The example shows that an unfavorable trend is developing and corrective action is necessary.The cause of the trend may be due to excessive delays in the shop, overloading of the shop by the scheduler, low performance efficiency, low labor utilization rate, or other reasons. The numbers above the trend line indicate the actual number of jobs behind the scheduled start date in the activity.

g. Backlog. The chart in figure 8 provides a detailed breakdown of the backlog for a particular work center. This particular example indicates that the largest percentage of backlog is due to shop space being unavailable. Investigation may reveal that part of this workload could be accomplished in another work center, or overtime or contracting may be required. A long–term excessive backlog due to shop space being unavailable may constitute justification for additional facilities

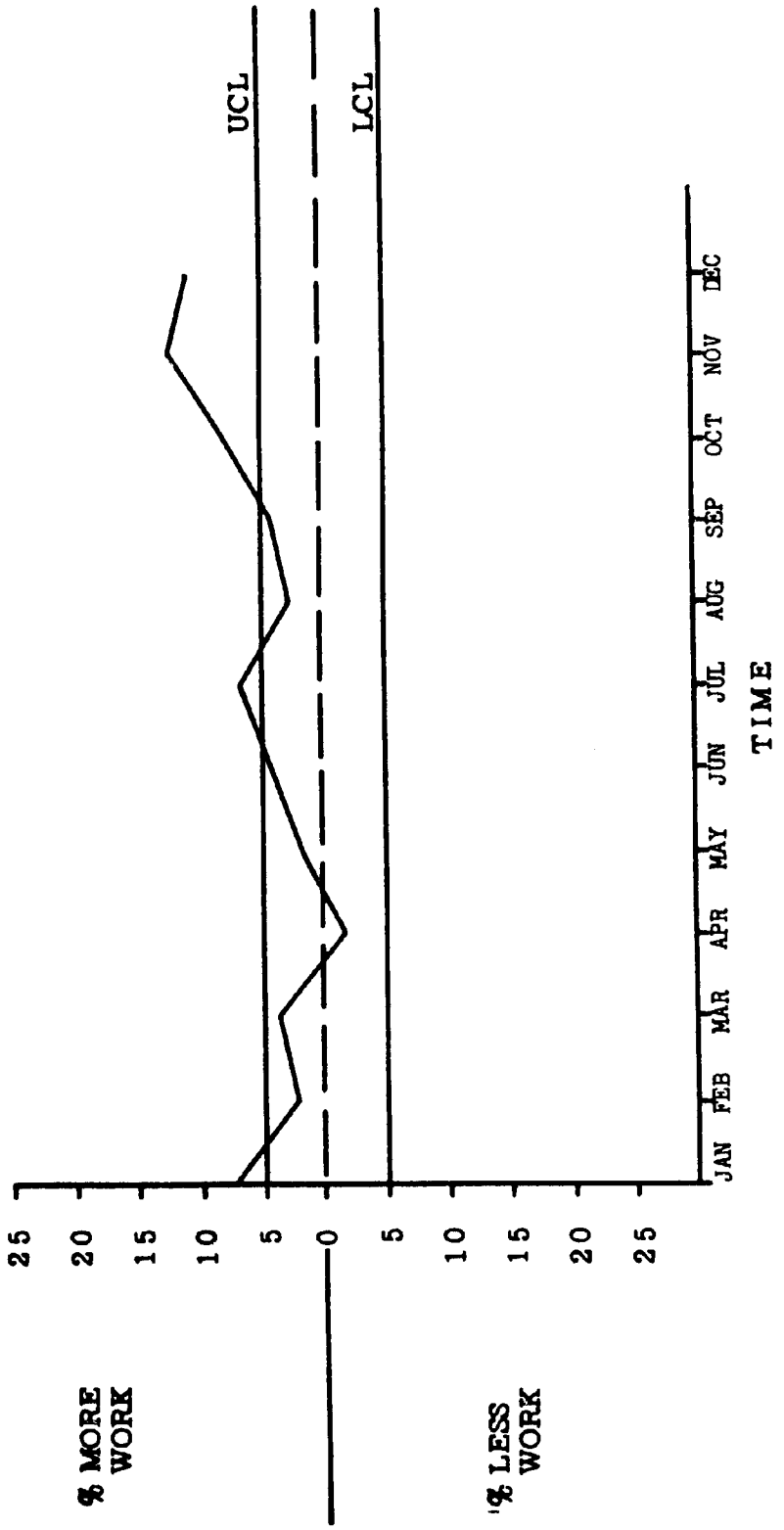


Figure 3. WORK PERFORMED AS A PERCENT OF INSPECTION RESULTS

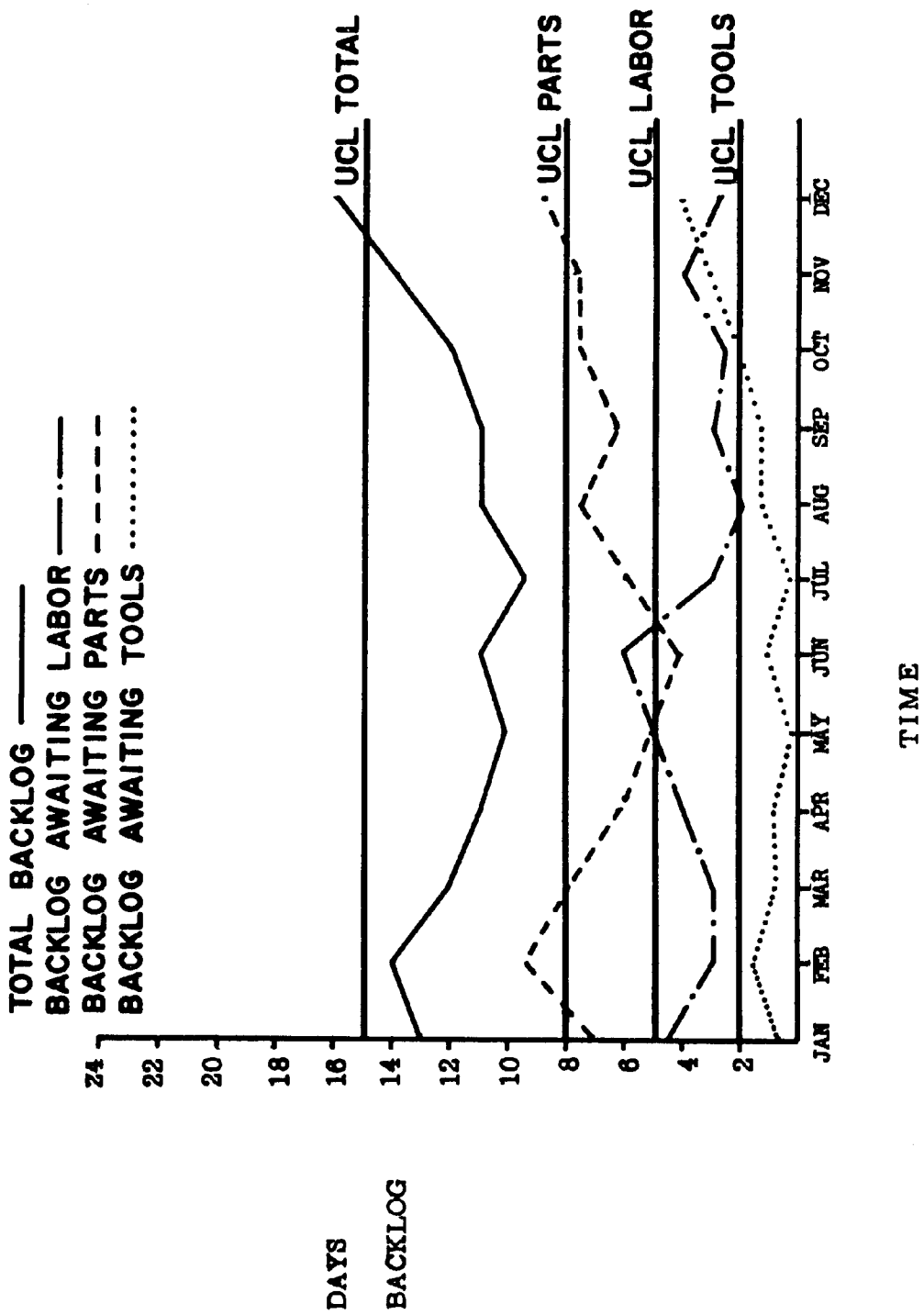


Figure 4. BACKLOG (COMMUNICATION &ELECTRONICS)

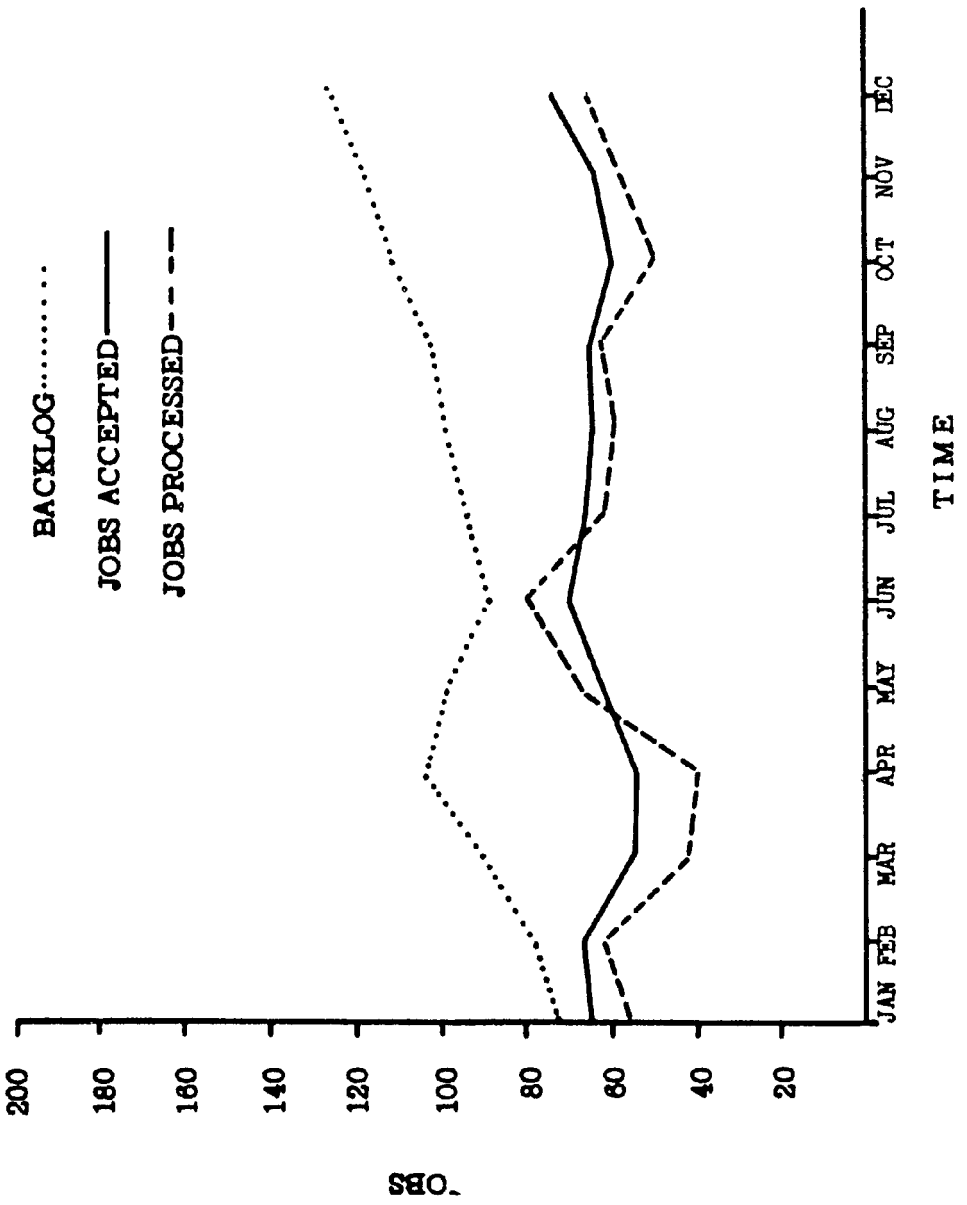


Figure 5. JOBS ACCEPTED, JOBS PROCESSED, AND BACKLOG

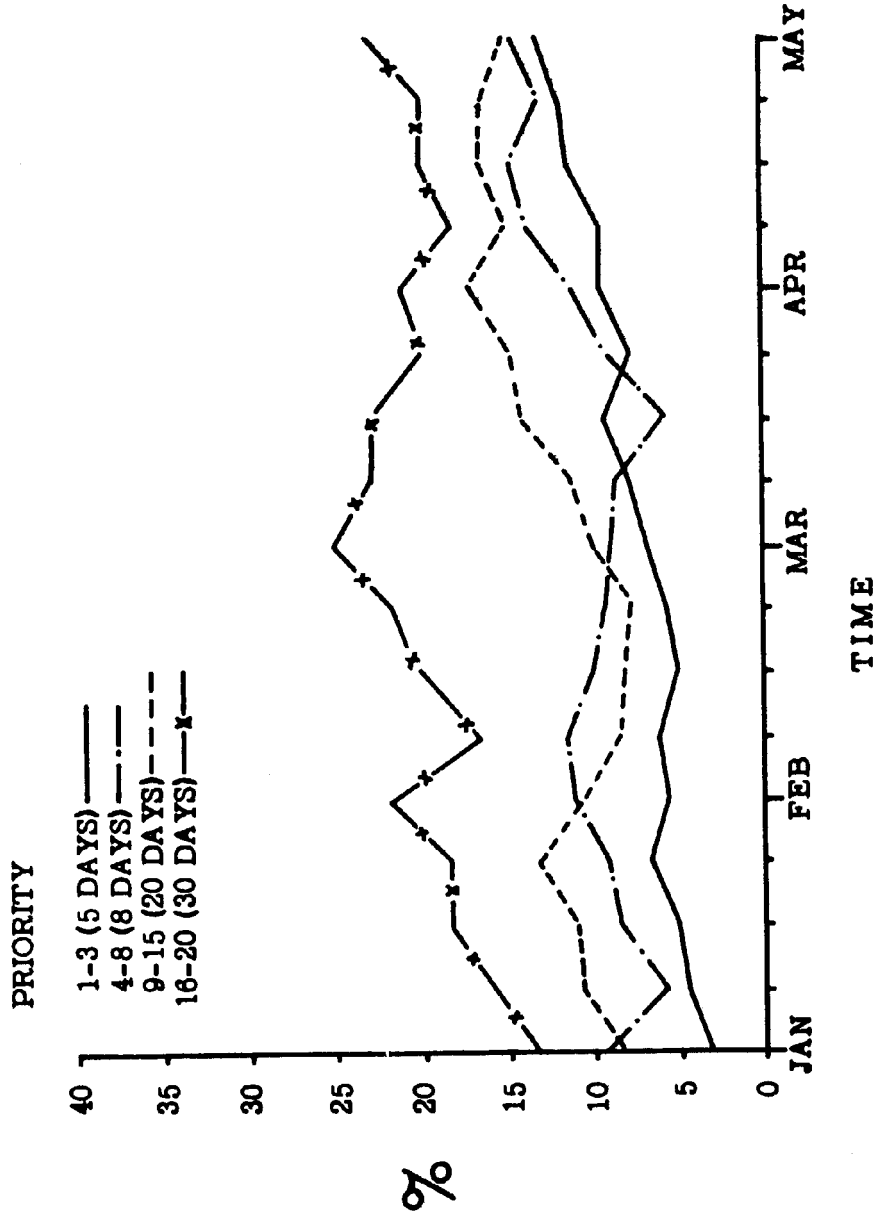


Figure 6. PERCENT PARTS NOT RECEIVED IN PRIORITY TIME PERIOD

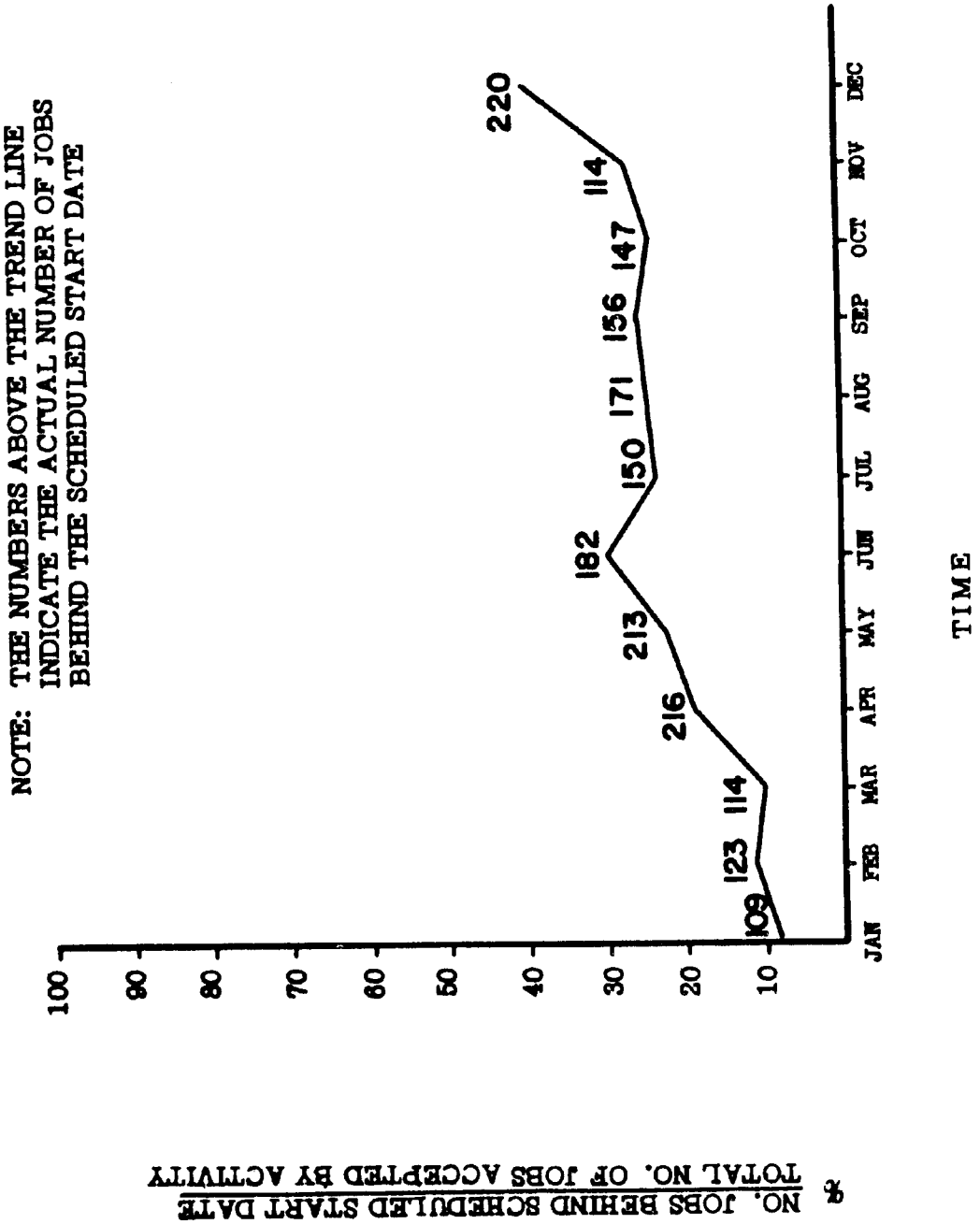


Figure 7. JOBS BEHIND SCHEDULED START DATE

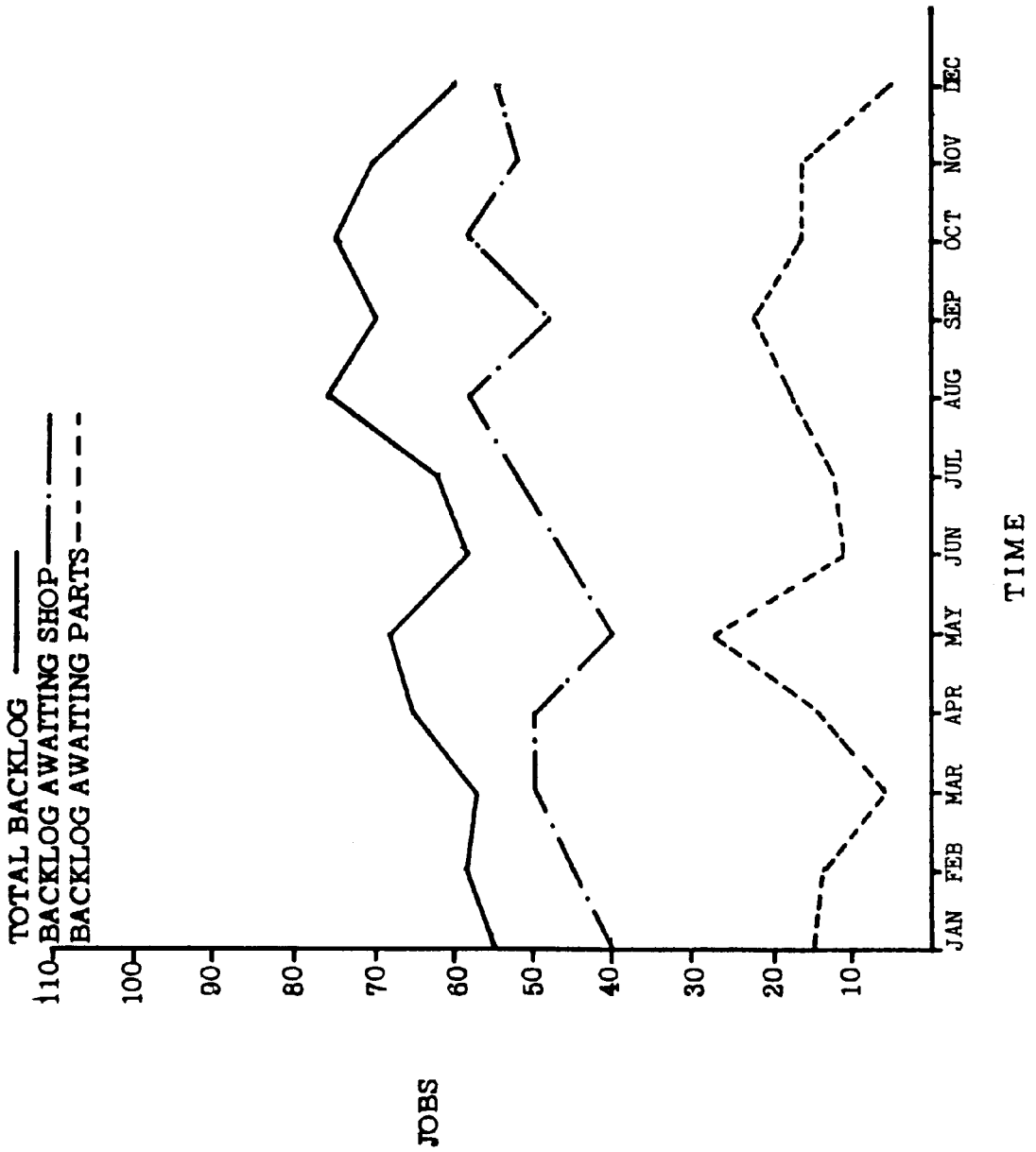


Figure 8. BACKLOG(TRACKED VEHICLE WORK CENTER)

Appendix A
References

Section I
Required Publications

AR 1–24
Administration, Army Management Doctrine.

AR 37–100–series
The Army Management Structure (Fiscal Code).

AR 58–1
Joint Procedures for Management of Administrative Use Motor Vehicles.

AR 71–6
Type Classification/Reclassification of Army Materiel.

AR 220–1
Unit Readiness.

AR 350–13
Materiel Readiness.

AR 381–143
Logistic Policies and Procedures.

AR 700–4
Supply and Maintenance Technical Assistance Program.

AR 700–18
Repair Parts Special Tools and Test Equipment Allocation and Allowances.

AR 700–35
Product Improvement of Materiel.

AR 705–50
Army Materiel Reliability and Maintainability.

AR 711–16
DSU/Installation Stock Control and Supply Procedures. (Army Field Stock Control System).

AR 715–30
Local Purchase of Civilian Type Items.

AR 725–50
Requisitioning, Receipt and Issue System.

AR 735–35
Supply Procedures for TOE and TDA Units or Activities.

AR 746–5
Color and Marking of Army Materiel.

AR 750–1
Maintenance Concepts.

AR 750–5
Organization Policies and Responsibilities for Maintenance Operations.

AR 750–6
Maintenance Support Planning.

AR 750–7
Support Maintenance Support Planning.

AR 750–18
Communications, Security Equipment Maintenance.

AR 750–27
Repair Cost Estimates and Maintenance Expenditure Limits.

AR 750–35
Alteration of Materiel.

AR 750–42
Microfilm Aperture Cards, Distribution of Technical Data For Maintenance Support of Aircraft Systems and Related Equipment (Microfilm Format).

AR 750–50
Use of Controlled Cannibalization as a Source of Repair for Supply Augmentation.

TM 38–750
Army Equipment Record Procedures.

TM 38–750–1
Maintenance Management, Field Command Procedures.

PAM 20–551
Staffing Guide for U.S. Army Garrisons.

PAM 750–9
Layout Planning and Procedure Guide for TDA Support Maintenance Facilities.

FM 38–5
Logistics Maintenance Management

FM 38–45
Logistics Installation Logistics Management.

SB 9–140
Field Maintenance Floats: Major Items of Equipment Authorized for Stockage in Both Peacetime and Wartime.

SB 11–244
Stockage of Signal Items for Use as Maintenance Float Exchange.

TB
Technical Bulletins (TB) which implement AR 750-27.

Section II
Related Publications
This section contains no entries.

Section III
Prescribed Forms
This section contains no entries.

Section IV
Referenced Forms
This section contains no entries.

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